Seasonal Trends in the Biological Characteristics of Atlantic Salmon *(Salmo salar L.)* Catches in the 1974-76 Commercial Fishery at Portugal Cove, Newfoundland

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SEASONAL TRENDS IN THE BIOLOGICAL CHARACTERISTICS OF ATLANTIC SALMON (*SALMO SALAR* L.) CATCHES IN THE 1974-76 COMMERCIAL FISHERY AT PORTUGAL COVE, NEWFOUNDLAND

by

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ABSTRACT

Reddin, D. G., and W. H. Lear. 1984. Seasonal trends in the biological characteristics of Atlantic salmon (Salmo salar L.) catches in the 1974-76 commercial fishery at Portugal Cove, Newfoundland. Can. Tech. Rep. Fish. Aquat. Sci. 1323: iv + 88 p.

Seasonal trends in the fork lengths, whole weights, river ages and sea-ages of Atlantic salmon (Salmo salar L.) caught in the Portugal Cove, Newfoundland, commercial fishery in 1974-76 were examined. Mean fork lengths of both 1SW and 2SW salmon were significantly different between years 1974 to 1976 and varied significantly from week 20 (May 15-21) to 27 (July 3-9) in 1975 and 1976 but not in 1974. Lower river ages of 1SW salmon caught in the earlier part of the fishing season in 1975 indicated a more southerly origin of those fish, and a more northerly origin for those fish caught later. Two-sea winter salmon were caught earlier in the season than 1SW salmon. In 1975 and 1976 there was an increase in the weekly mean whole weights of 1SW and 2SW salmon from week 20 to 27. Allometric growth was shown for salmon caught in this fishery.

RÉSUMÉ

Reddin, D. G., and W. H. Lear. 1984. Seasonal trends in the biological characteristics of Atlantic salmon (Salmo salar L.) catches in the 1974-76 commercial fishery at Portugal Cove, Newfoundland. Can. Tech. Rep. Fish. Aquat. Sci. 1323: iv + 88 p.

On a étudié les tendances saisonières sur le plan de la longueur à la fourche, du poids total, de l'âge en milieu fluvial et de l'âge en mer chez le saumon de l'Atlantique (Salmo salar) capturé au cours de la pêche commerciale dans l'anse Portugal (T.-N.), de 1974 à 1976. Les longueurs moyennes à la fourche des saumons ayant passé un an et deux ans en mer étaient significativement différentes entre 1974 et 1976 et variaient de façon significative de la 20^{e} (du 15 au 21 mai) à la 27^{e} semaine (du 3 au 9 juillet), en 1975 et 1976, mais non en 1974. Des âges moins avancés en eau douce chez les poissons ayant passé un an en mer et capturés au début de la saison de pêche, en 1975, ont permis de constater qu'ils provenaient d'un endroit plus au sud et que ceux pris plus tard avaient une origine plus septentrionale. Les saumons ayant passé deux ans en mer ont été capturés plus tôt dans la saison que ceux ayant séjourné un an en milieu marin. De la 20^{e} à la 27^{e} semaine en 1975 et 1976, on a observé une augmentation du poids total moyen hebdomadaire chez les saumons ayant passé un an et deux ans en mer. Les poissons capturés pendant cette pêche accusaient une croissance allométrique.

1. INTRODUCTION AND METHODS

The commercial Atlantic salmon (Salmo salar L.) fishery in the Conception Bay area (Fig. 1.1) exploits fish which originate in many river systems in insular Newfoundland, Labrador, the Maritimes, Quebec and USA (Pippy 1982).

The annual commercial salmon catches, 1974-76, in the Conception Bay area ranged from 125,941 kg in 1974 to 48,283 kg in 1976. Most of these catches were marketed as local consumption and were reported by Fisheries Officers on a community basis rather than through the buyers' records system. In 1974, local sales were 84% of the total catch; in 1975, 91% and in 1976, 90%.

Catch records indicate that salmon, that have spent two or three winters at sea (2SW or 3SW), approach the coast earlier during the season than do those salmon that have spent only one winter at sea (1SW) (Lear et al. 1974). Lindsay and Thompson (1932), Blair (1943), and Reddin and Waldron (1976) showed that the peaks of both multi-sea-winter (MSW) and 1SW salmon catches occurred progressively later from south to north along the northeast Newfoundland and Labrador coasts. Ice conditions along the Newfoundland and Labrador coasts greatly influence the actual beginning of fishing and the timing of migration of fish to the coast (Reddin and Day 1980; Pippy 1982).

The purpose of this report is to describe the seasonal changes in size, sea-age, river age and sex ratio of Atlantic salmon exploited by the commercial fishery in the Conception Bay area at Portugal Cove in 1974, 1975 and 1976.

Salmon were chosen randomly from landings at Portugal Cove from 16 May to 4 July, 1974; 16 May to 7 July, 1975; and 19 May to 9 July, 1976 (Table 1.1). In total, 1370 salmon (1974 - 412, 1975 - 678, 1976 - 280) were examined for fork length (FL) - from the tip of the nose to the mid-fork of the tail measured to the nearest centimetre, whole weight (WW) - fresh, round weight of the fish weighed to the nearest 1/10th of a kilogram, and sex - determined from internal examination of gonads. A scale sample was collected from the left side of the fish, just above the lateral line and behind a line from the posterior edge of the dorsal fin to the anterior edge of the anal fin. Alternate areas of scale collection were the same location on the right side of the fish or the general body area. Weighing devices were checked for accuracy with a standard set of weights and measurements corrected where necessary. In the laboratory, five scales per fish were interpreted for river age, sea-age, plus growth and the presence of spawning marks. The smolt class was calculated by subtracting sea- age from the date of capture and year class was calculated by subtracting sea- age plus river age from the date of capture.

The program used for analysis of variance (ANOVA) was a Biomedical Computer Program (BMDP-7D). All regressions were done using BMDP-1R and analysis of covariance (ANCOVA) by BMDP-1V (Anon. 1979). An assumption of ANOVA is that the variances of the populations being compared are equal (Kirk 1968). This assumption was tested using Levene's test for equality of variances (Brown and Forsythe 1974a and c). Where the null hypothesis was accepted (H_0: $\rho_1^2 = \rho_2^2 \ldots = \rho_i^2$)the common F-statistic (F) was reported; where

H_0 was rejected and the alternate hypothesis accepted (H_1: $\rho_1^2 \neq \rho_2^2 \neq \rho_f^2$) the Brown-Forsythe F-statistic (F*) was reported instead (Brown and Forsythe 1974a and c).

2. AGE-LENGTH DISTRIBUTIONS

. A fork length of 62 cm (corresponding to a whole weight of about 2.7 kg) is a realistic dividing line to separate one-sea-winter and older salmon (Lear and May 1972; Lear 1973). The percentage of fish with a fork length greater than 62 cm, decreased in 1974 from 100% in week 20 to 21.7% in week 27; in 1975 from 96.5% in week 20 to 13.3% in week 27; and in 1976 from 100% in week 20 to 8.3% in week 27 (Tables 2.1, 2.2, 2.3). For all weeks combined, the percentage of fish with a fork length greater than 62 cm was 51.2% in 1974, 72.3% in 1975 and 51.1% in 1976 (Fig. 2.1). The official commercial catch statistics for Portugal Cove show that in 1974, 42.2% of the catch was reported in the large category, in 1975 - 83.5%, and in 1976 - 35.6% (Reddin, unpublished data; Reddin and Waldron 1976; Reddin and Short 1981).

Results of ANOVA showed that the mean fork lengths of salmon for all sea-ages combined (Tables 2.1-2.3) significantly declined from week 20 to week 27 in 1974 ($F^*_{7,170} = 51.4$, $P < 0.001$), 1975 ($F^*_{7,294} = 18.4$, $P < 0.001$) and 1976 ($F^*_{7,228} = 17.7$, $P < 0.001$). However, the mean fork lengths of 1SW salmon were not significantly different for different weeks in 1974 ($F_{4,177} = 1.77$, $P = 0.14$), but in 1975 ($F_{6,172} = 2.67$, $P = 0.017$) and 1976 ($F_{5,131} = 3.98$, $P = 0.003$) there were significant differences in weekly mean fork lengths (Tables 2.4, 2.5 and 2.6). ANOVA indicated that in 1974 there were no significant differences in mean fork lengths of 2SW salmon from week 20 to week 27 ($F_{7,181} = 0.13$, $P = 0.996$, Table 2.7). In 1975 and 1976 there were significant differences in mean fork lengths of 2SW salmon from week 20 to week 27 ($F_{7,448} = 2.57$, $P = 0.023$, Table 2.8) and ($F_{7,123} = 7.62$, $P < 0.001$, Table 2.9) respectively. ANOVA was not used to compare weekly mean fork lengths of catches of 3SW salmon or previous spawners because of inadequate sample sizes (Table 2.10-2.15).

ANOVA indicated that the mean fork lengths of salmon caught in 1974, 1975 and 1976 were significantly different for 1SW ($F_{2,516} = 11.5$, $P < 0.001$), and for 2SW ($F^*_{2,540} = 18.13$, $P < 0.001$). For 3SW and previously spawned salmon there were no significant differences in mean fork lengths in 1974, 1975 and 1976 ($F_{2,28} = 0.80$, $P = 0.457$ and $F_{2,37} = 0.60$, $P = 0.555$). Multiple comparison tests (Scheffé 1953; Brown and Forsythe 1974b and c) indicated that the mean fork lengths of 1SW salmon were significantly larger in 1974 than in 1975. In 1974 and 1976, and 1975 and 1976 mean fork lengths of 1SW salmon were similar at the 5% level of significance. For 2SW salmon, multiple comparison tests indicated that the salmon caught had greater fork lengths in 1974 than in 1975, greater in 1976 than in 1975, and were similar in 1974 and 1976.

All of the above information indicated that larger fish, having spent two or three winters at sea, migrate to the coast during early May and June, followed by the smaller fish that had spent only one winter at sea. This is in

accordance with findings (Lear et al. 1974; Reddin and Waldron 1976) previously mentioned.

3. AGE DISTRIBUTIONS BY WEEKLY INTERVAL

The river ages of salmon caught near Portugal cove ranged from 1 year to 6 years suggesting a mixture of stocks from southern and northern areas. The seasonal distributions of river ages of Atlantic salmon for 1974, 1975 and 1976 were similar in that higher percentages of fish with a lower river age were caught early in the season (Tables 3.1-3.24, Fig. 3.1 and 3.2). This indicates that the rivers of origin of these fish are from a more southerly region earlier in the season and more northerly later in the season (Templeman 1967; Lear and Misra 1978).

4. RIVER AGES BY SEA AGES AND WEEKLY INTERVALS

In 1974 the mean river ages of 1SW salmon fluctuated between 2.80 in week 27 to 3.20 in week 25 (Table 4.1). Analysis of variance indicated that for 1SW in 1974 there were no significant differences ($F_{4,195} = 1.21$, $P = 0.307$) among mean river ages for weeks 22, and 24 to 27. Analysis of variance for 1SW salmon indicated that during 1975 the mean river ages increased significantly ($F^*_{6,103} = 2.38$, $P = 0.034$) from 2.50 in week 21 to 3.23 in week 27 (Table 4.2). There were no significant differences ($F_{5,130} = 0.40$, $P = 0.851$) among mean river ages of 1SW salmon during 1976 for weeks 21, and 23 to 27 (Table 4.3). Mean river ages fluctuated from 2.00 (1 fish) during week 21 to 2.76 during week 24 but were mainly about 2.7.

For the 2SW salmon caught at the beginning of the fishery in week 20 the average river ages were 2.67, 2.62 and 3.63 years respectively in years 1974, 1975 and 1976 and had decreased slightly at the end of the season in week 27 to 2.50 and 3.00 in years 1974 and 1976 and increased slightly in 1975 to 3.50 years (Table 4.4 - 4.6) although sample sizes were small (1 to 2) in week 27 and may not be truly representative. Analysis of variance indicated for 2SW fish in 1974, 1975 and 1976 that mean river ages did not differ significantly throughout the season ($F_{7,177} = 0.54$, $P = 0.806$; $F^*_{7,16} = 1.47$, $P = 0.247$; and $F^*_{7,42} = 2.20$, $P = 0.053$ respectively). There were not enough 3SW and previously spawned salmon for meaningful analysis (Tables 4.7 - 4.12).

The period of time spent in the rivers prior to smolt migration varies from 2.25 years in Maine to 5.29 years in Ungava Bay in the north (Templeman 1967) and generally increases significantly with latitude throughout the east coast of North America (Lear and Misra 1978). Thus, a definitive pattern of migration did not occur for large salmon at Portugal Cove as occurred in Bonavista Bay (Lear et al. 1974) where smolt ages of 2SW salmon increased during the season.

5. SEA-AGE DISTRIBUTIONS BY WEEKLY INTERVALS

The mean sea-ages of Atlantic salmon in the Portugal Cove catches declined substantially from week 20 to week 27 in 1974, 1975 and 1976 (Tables 5.1-5.3). Mean sea-age declined in these catches in 1974 from 2.25 to 1.13 years, in 1975 from 2.10 to 1.13 years, and in 1976 from 2.00 to 1.08 years. The sea-age composition changed from 0%-1SW fish in week 20 to 87% in week 27 in 1974 and in 1975 and to 92% in 1976. Overall, 1SW fish were 49%, 27% and 49% of the samples in 1974, 1975 and 1976 respectively. Only during weeks 22, 24, 25, 26 were the samples large enough to compare between years. In 1974, 1975 and 1976 for week 22, there were 2%, 20%, and 0%; for week 24, there were 48%, 49% and 57%; for week 25, there were 71%, 73% and 57%; and for week 26, there were 74%, 63% and 81% 1-sea-winter salmon in the catches respectively in each of these years. This indicates the degree of yearly variability that can exist in salmon catches at the same location.

6. AGE-WEIGHT DISTRIBUTIONS BY WEEKLY INTERVALS

Results of ANOVA indicated that the mean whole weights of 1SW salmon from the Portugal Cove fishery differed significantly for years 1974, 1975 and 1976 ($F_{2,515} = 10.87$, $P < 0.0001$). Multiple comparison tests indicated that the mean whole weight of 1.99 kg in 1974 was significantly greater than 1.85 kg in 1975 at the 5% level of significance. Comparison of mean whole weights of 1SW salmon in 1974 and 1976, and 1975 and 1976 showed no significant differences between them at 5% level of significance.

Results of analysis of variance indicated that the mean whole weights of 1SW fish caught in the Portugal Cove fishery in 1974 were similar between weeks 22 and 24 to 27 ($F_{4,197} = 1.51$, $P = 0.20$) (Table 6.1). In 1975, 1SW fish were caught from week 21 to 27 and the mean whole weights that ranged from 1.68 kg to 2.29 kg increased significantly over these weeks ($F_{6,172} = 7.82$, $P < 0.00001$) (Table 6.2). In 1976, 1SW fish were caught in week 21 and weeks 23 to 27 and the mean whole weights increased significantly from 1.50 kg to 2.13 kg over these weeks ($F_{5,131} = 2.86$, $P = 0.0174$) (Table 6.3).

Results of analysis of variance indicated that the mean whole weights of 2SW salmon from the Portugal Cove fishery differed significantly for years 1974, 1975 and 1976 ($F_{2,772} = 16.97$, $P < 0.0001$). Multiple comparison tests indicated that the mean whole weight of 4.73 kg in 1974 was significantly greater than 4.34 kg in 1975. The mean whole weight of 4.34 kg in 1975 was significantly less than 4.61 kg in 1976 at 5% level of significance. Comparison of mean whole weights of 2SW salmon in 1974 and 1976 showed no significant differences at 5% level of significance.

Results of analysis of variance indicated that the mean whole weights of 2SW fish caught in the Portugal Cove fishery in 1974 were similar from week 20 to 27 ($F_{7,181} = 1.76$, $P = 0.0980$) (Table 6.4). In 1975, 2SW fish were caught from week 20 to 27 and the mean whole weights that ranged from 4.06 kg to 6.40 kg increased significantly over these weeks ($F^{*}_{7,48} = 4.77$, $P = 0.0004$) (Table 6.5). In 1976, 2SW fish were caught during week 20 to 27 and mean whole

weights that ranged from 4.14 kg to 5.28 kg increased significantly over these weeks ($F_{7,123} = 9.08$, $P < 0.0001$) (Table 6.6).

The weight distribution of 1- and 2SW salmon by weekly intervals illustrates the practicality of 2.7 kg round weight interval for separating 1SW salmon from larger multi-sea-winter salmon. This supports previous findings reported by Lear and May (1972) and Lear (1973).

There were too few of 3SW and previously spawned salmon for analysis of variance (Tables 6.7-6.12). Lear et al. (1974) indicated that larger previous spawners which had spent two winters at sea prior to spawning migrated toward the coast at Bonavista earlier than smaller fish that spawned as grilse the previous autumn. This does not appear to be the case at Portugal Cove.

7. LENGTH-WEIGHT RELATIONSHIPS

The predictive regressions relating length to weight were calculated by using the equation $W = cL^b$ in which W = weight (kg), L = length (cm) and c and b are regression coefficients. The least squares regression of the natural log (ln) transformation $Y = a + bx$ in which $Y = \ln W$; $a = \ln c$; and $X = \ln L$ was used for estimating values of c and b. This transformation was appropriate because of the large variation in the dependent variable that typically increases with an increase in the independent variable.

Analysis of covariance (ANCOVA) indicated that the slopes of the relationship between (ln) whole weight on (ln) fork length were similar between years 1974, 1975 and 1976 ($F_{2,367} = 1.94$, $P = 0.144$). Thus, data were combined for all years (Fig. 7.1) and comparisons made between virgin sea-ages, i.e. 1SW and 2SW salmon. ANCOVA showed that the slope of the relationship between natural logarithms of WW and FL of 1SW salmon was significantly different from that of 2SW salmon ($F_{1,1290} = 161.6$, $P < 0.001$) (Fig. 7.2).

Analyses of covariance indicated that in each of weeks 24, 25, and 26 1SW salmon caught in 1974, 1975, and 1976 all had similar slopes (week 24 - $F_{2,86} = 2.63$, $P = 0.0780$; week 25 - $F_{2,87} = 0.37$, $P = 0.694$; week 26 - $F_{2,184} = 2.65$, $P = 0.0734$). The adjusted means for years 1974, 1975, and 1976 were significantly different in week 24 ($F_{2,88} = 4.42$, $P = 0.0148$), in week 25 ($F_{2,89} = 4.34$, $P = 0.0159$) and in week 26 ($F_{2,186} = 3.51$, $P = 0.0319$). Further analyses comparing slopes by week were carried out on the data combined for all years. This analysis showed that 1SW salmon caught in weeks 21-27 had significantly different slopes ($F_{6,504} = 2.67$, $P = 0.0146$) (Table 7.1, Fig. 7.3). Since the weekly mean whole weights adjusted for fork length differences were also significant ($F_{6,510} = 10.9$, $P < 0.01$), this indicates that whole weight increased significantly from week 21 to 27. As the slope of the relationship between the adjusted mean whole weights and weeks is positive, this confirms the increase in whole weight (Fig. 7.4).

Analysis of covariance indicated that the 2SW salmon caught in 1974, 1975 and 1976 in week 22 had similar slopes for the relationship between (ln) whole weight on (ln) fork length ($F_{2,179} = 1.10$, $P = 0.3339$) and similar adjusted means ($F_{2,181} = 0.1174$, $P = 0.8893$). Further analyses comparing slopes by week

were carried out on the data combined for all years. This analysis showed that the relationship of (ln) whole weight on (ln) fork length for 2SW salmon caught in weeks 20-27 have similar slopes ($F_{7,760} = 0.67$, $P = 0.6965$) but significantly different adjusted means ($F_{7,767} = 11.09$, $P < 0.01$) (Fig. 7.5). Thus, removing the effect of fork length differences between weeks for 2SW fish caught by examining the adjusted weekly mean whole weights indicated that whole weight increased significantly from week 20 to 27 (Fig. 7.4).

Lear et al. (1974) showed that Atlantic salmon are feeding heavily during their inshore migrations. Since whole weight and fork length both increased significantly at Portugal Cove for both 1SW and 2SW salmon and the fact that whole weight increased significantly once differences in fork lengths were accounted for suggests allometric type growth was occurring.

8. SEX RATIOS

The percentages of females in the 1SW group in the Portugal Cove area varied from 26.7% in 1974, to 61.5% in 1975 and to 32.1% in 1976. The percentages of females in the 2SW group in the Portugal Cove area varied from 81.8% in 1974, to 72.4% in 1975, and to 87.9% in 1976 (Tables 8.1-8.3).

9. SUMMARY

1. The mean fork lengths of 1SW and 2SW Atlantic salmon taken by the commercial fishery in Portugal Cove area were significantly different in 1974, 1975, and 1976. For these years mean fork lengths of 1SW fish were: 55.0, 53.5, and 54.5 cms respectively; those of 2SW fish were: 75.1, 73.2, and 74.3 cms, respectively.

2. The mean fork lengths of 1SW and 2SW Atlantic salmon were significantly different for weeks 20 through 27 in 1975 and 1976, but not in 1974.

3. Mean river ages of 1SW salmon caught in 1975 increased significantly from 2.50 in week 21 to 3.23 in week 27. Lower river ages of salmon caught earlier in the season may indicate a more southerly origin of these fish and a more northerly origin of those fish caught later in the season.

4. There were no significant differences in weekly mean river ages of 1SW salmon caught in 1974 or 1976.

5. Mean river ages of 2SW salmon caught in 1974, 1975 and 1976 were similar from week 20 through week 27.

6. Sea-age distributions of salmon caught in 1974, 1975, and 1976 changed from predominately 2SW fish in week 20 to 1SW in week 27.

7. Mean whole weights of 1SW Atlantic salmon differed significantly in years 1974, 1975 and 1976. Mean whole weights were 1.99 kg in 1974, 1.85 kg in 1975 and 1.91 kg in 1976.

8. In 1975 and 1976, the mean whole weights of 1SW Atlantic salmon caught increased significantly from weeks 21 through 27. In 1974, mean whole weights of 1SW salmon were similar in all weeks.

9. Mean whole weights of 2SW Atlantic salmon caught differed significantly in years 1974, 1975 and 1976. Mean whole weights were: 1974 - 4.73 kg, 1975 - 4.34 kg and 1976 - 4.61 kg.

10. In 1975 and 1976, the mean whole weights of 2SW Atlantic salmon caught increased significantly from week 20 through to week 27. In 1974, mean whole weights of 2SW salmon were similar in all weeks.

11. Overall, the slope of the relationship between the natural logarithms of whole weight on fork length were similar between years 1974, 1975, and 1976.

12. For all years combined, the slopes of the natural logarithms of whole weight on fork length for 1SW and 2SW Atlantic salmon caught were significantly different.

13. Allometric growth was demonstrated between sea-age classes of Atlantic salmon. For any particular fork length, the whole weight increased throughout the season.

14. Sex ratios of 1SW Atlantic salmon caught ranged from 26.7% in 1974 to 61.5% in 1975. Sex ratios of 2SW salmon ranged from 72.4% in 1975 to 87.9% in 1976.

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Table 1.1. Dates of weekly intervals during which Atlantic salmon were sampled at Portugal Cove in 1974, 1975, and 1976.

Week number	Date
20	May 15-21
21	May 22-28
22	May 29-June 4
23	June 5-11
24	June 12-18
25	June 19-25
26	June 26-July 2
27	July 3-9

Table 2.1. Weekly fork length distributions of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland in 1974.

	Week number									
FL (cm)	20	21	22	23	24	25	26	27	Total	%
45					1				1	0.2
46										
47										
48										
49					1	1	1		3	0.7
50						1	4		5	1.2
51			1		2	1	6		10	2.4
52					1	2	10		13	3.2
53					5	2	16	4	27	6.6
54			1		7	3	18		29	7.0
55					5	3	20	7	35	8.5
56					6	4	16	4	30	7.3
57					6	2	8	1	17	4.1
58					1	1	9		11	2.7
59					3	2	4	2	11	2.7
60					1	2	1		4	1.0
61						1	2		3	0.7
62					1		1		2	0.5
63								2	2	0.5
64					1				1	0.2
65			1		1		1	1	4	1.0
66										
67					2				2	0.5
68					2				2	0.5
69			3		2	1	1		7	1.7
70			2				1		3	0.7
71		1	8		1	1	1		12	2.9
72	1	2	4		4		4		15	3.6
73			4	1	7	1	4		17	4.1
74			9		3	1	2		15	3.6
75	1		17		4	2	4		28	6.8
76		1	15		3	1	4		24	5.8
77	1	1	10		2	1	9		24	5.8
78		1	7		2	1	4		15	3.6
79			5		3		1		9	2.2
80			4		2	1	1	1	9	2.2
81					1		1		2	0.5
82		1	2		3		1	1	8	1.9
83					1		1		2	0.5
84	1		1						2	0.5
85			1				1		2	0.5
86			1						1	0.2
87			1						1	0.2
88										
89			1						1	0.2
90			1						1	0.2
91										
92										
93			1						1	0.2
94			1						1	0.2
N	4	7	101	1	84	35	157	23	412	99.6
%<62	0.0	0.0	2.0	0.0	47.6	71.4	73.9	78.3	48.8	
%≥62	100.0	100.0	98.0	100.0	52.4	28.6	26.1	21.7	51.2	
Mean	77.0	75.4	75.7	73.0	65.2	60.9	60.2	58.7	65.4	
S.D.	5.01	3.99	5.80	0.0	10.53	9.49	9.67	7.78	11.01	

Table 2.2. Weekly fork length distributions of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland in 1975.

	Week number									
FL (cm)	20	21	22	23	24	25	26	27	Total	%
44					1				1	0.1
45										
46							1		1	0.1
47			1	1					2	0.3
48		1			1	2	2		6	0.9
49		1	2	1	1	2			7	1.0
50			1		1	2	1		5	0.7
51			1	6	2	3			12	1.8
52		4	2	7	5	6			24	3.5
53			4	6	7	4	6	2	29	4.3
54		4	6	4	7	6	2	1	30	4.4
55		3	2	6	2	5	4	3	25	3.7
56		2	2	6	3	1	1	2	17	2.5
57			3	3	1	1	3	3	14	2.1
58		4		1			2	1	8	1.2
59						1		1	2	0.3
60		1	1	1					3	0.4
61										
62	1						1		2	0.3
63	1	2					1		4	0.6
64		2							2	0.3
65		1		1	1				3	0.4
66		5			1				6	0.9
67	1	8	3	1	2				15	2.2
68		7	2	3	2				14	2.1
69	2	10	3	5	1	1	1		23	3.4
70	1	23	6	11	1				42	6.2
71	3	26	4	5		1			39	5.8
72	5	15	10	7	4		2		43	6.3
73	1	18	11	15	4	1			50	7.4
74	3	22	14	10	6	1	1		57	8.4
75		17	5	10	2		1		35	5.2
76	1	13	8	9		3	1		35	5.2
77	4	6	5	5	2	2			24	3.5
78		7	2	8		1			18	2.7
79	1	4	6	3	1			1	16	2.4
80	1	8	2		1	1	1		14	2.1
81	1	2	2	3		1		1	10	1.5
82		2		8	1				11	1.6
83			1	2					3	0.4
84			1						1	0.1
85				4			1		5	0.7
86										
87	1	1			2				4	0.6
88			1	1					2	0.3
89	1			2					3	0.4
90	1	2							3	0.4
91		1					1		2	0.3
92			1						1	0.1
93			1	1	1				3	0.4
94										
95		1							1	0.1
96										
97			1						1	0.1
N	29	223	114	156	63	45	33	15	678	99.7
$\bar{X}<62$	3.4	9.0	21.9	26.9	49.2	73.3	69.7	86.7	27.7	
$\bar{X}\geq62$	96.5	91.0	78.1	73.1	50.8	26.7	30.3	13.3	72.3	
Mean	74.4	71.4	70.2	69.5	63.7	58.9	60.6	59.0	68.6	
S.D.	6.61	7.03	10.09	10.68	11.82	10.60	11.37	8.70	10.36	

Table 2.3. Weekly fork length distributions of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland in 1976.

	Week Number									
FL (cm)	20	21	22	23	24	25	26	27	Total	%
47							1		1	0.4
48										
49					1	2			3	1.1
50				1		1	1		3	1.1
51		1		2	2	1	6		12	4.3
52				4	4	4	6		18	6.4
53				2	5	5	6		18	6.4
54				2	1	3	7		13	4.6
55				1	2	2	11		16	5.7
56					4	5	9	4	22	7.9
57						4	5	4	13	4.6
58				2	1	2			5	1.8
59					1	4		3	8	2.9
60						2	2		4	1.4
61							1		1	0.4
62										
63										
64			1						1	0.4
65										
66				1					1	0.4
67			1	1					2	0.7
68				2	1				3	1.1
69	1	1	1	2	1				6	2.1
70		2			3				5	1.8
71		1	2	2					5	1.8
72		2	4	3	2	2			13	4.6
73	2	2	2	6	2	2	1	1	18	6.4
74	3	5	2	4	1	2	2		19	6.8
75	1	8	4	1	4	4			22	7.9
76		3	1			1	1		6	2.1
77		5	4	1	1	1	1		13	4.6
78	2					3	3		8	2.9
79						5	3		8	2.9
80				1	1	3			5	1.8
81						1			1	0.4
82						1	1		2	0.7
83						1			1	0.4
84										
85										
86										
87				1					1	0.4
88										
89						1			1	0.4
90										
91										
92										
93										
94				1					1	0.4
95										
96							1		1	0.4
N	9	30	22	40	37	62	68	12	280	100.4
%<62	0.0	3.3	0.0	35.0	56.8	56.5	80.9	91.7	48.9	
%>62	100.0	96.7	100.0	65.0	43.2	43.5	19.1	8.3	51.1	
Mean	74.2	73.5	73.1	66.4	62.1	64.8	59.0	58.5	64.9	
S.D.	2.73	4.78	3.35	11.00	10.05	11.81	10.23	4.72	10.85	

Table 2.4 Weekly fork length distributions of 1SW Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland in 1974.

FL (cm)	Week Number					Total
	22	24	25	26	27	
45		1				1
46						
47						
48						
49		1	1	1		3
50			1	4		5
51	1	2	1	6		10
52		1	2	10		13
53		5	2	16	4	27
54	1	7	3	18		29
55		5	3	20	7	35
56		6	4	16	4	30
57		6	2	8	1	17
58		1	1	9		11
59		3	2	4	2	11
60		1	2	1		4
61			1	1		2
62				1		1
63					1	1
64		1				1
65					1	1
N	2	40	25	115	20	202
MEAN	52.50	55.08	55.28	54.68	56.20	54.96
S.D.	2.12	3.19	3.18	2.47	3.17	2.81

Table 2.5 Weekly forklength distributions of 1SW Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1975.

FL (cm)	Week Number							Total
	21	22	23	24	25	26	27	
44				1				1
45								
46						1		1
47		1	1					2
48	1			1	2	1		5
49	1	2	1	1	2			7
50		1		1	2	1		5
51		1	6	2	3			12
52	4	2	7	5	6			24
53		4	6	7	4	6	2	29
54	4	6	4	7	6	2	1	30
55	3	1	6	2	5	4	3	24
56	2	1	6	3	1	1	2	16
57		3	2	1	1	3	3	13
58	4		1			1	1	7
59					1		1	2
60		1						1
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
N	19	23	40	31	33	20	13	179
MEAN	54.21	53.39	53.45	52.81	52.79	53.75	55.77	53.49
S.D.	2.90	2.98	2.34	2.59	2.52	3.01	1.83	2.69

Table 2.6 Weekly fork length distributions of 1SW Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1976.

FL (cm)	Week Number						Total
	21	23	24	25	26	27	
47					1		1
48							
49			1	2			3
50		1		1	1		3
51	1	2	2	1	6		12
52		4	4	4	6		18
53		2	5	5	6		18
54		2	1	3	7		13
55		1	2	2	11		16
56			4	5	9	4	22
57				4	5	4	13
58		2	1	2			5
59			1	4		3	8
60				2	2		4
61					1		1
N	1	14	21	35	55	11	137
MEAN	51.00	53.21	53.76	54.97	54.29	57.18	54.48
S.D.	0.00	2.42	2.47	3.09	2.57	1.25	2.76

Table 2.7 Weekly fork length distributions of 2SW Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1974.

FL (cm)	Week Number								Total
	20	21	22	23	24	25	26	27	
61							1		1
62					1				1
63								1	1
64									
65			1				1		2
66									
67									
68					2				2
69			2		2	1	1		6
70			2				1		3
71		1	8			1	1		11
72	1	2	4		3		4		14
73			4	1	7	1	4		17
74			9		3	1	2		15
75	1		16		4	2	4		27
76		1	14		3	1	4		23
77	1	1	10		2	1	9		24
78		1	6		2	1	4		14
79			5		3				8
80			4		2		1	1	8
81					1		1		2
82		1	2		3		1	1	8
83					1		1		2
N	3	7	87	1	39	9	40	3	189
MEAN	74.67	75.43	75.15	73.00	75.13	74.22	74.98	75.00	75.05
S.D.	2.52	3.99	3.04	0.00	4.50	2.86	4.17	10.44	3.75

Table 2.8 Weekly fork length distributions of 2SW Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1975.

FL (cm)	Week Number								Total
	20	21	22	23	24	25	26	27	
56			1						1
57				1					1
58							1		1
59									
60		1		1					2
61							1		2
62	1						1		4
63	1	2							2
64		2			1				3
65		1		1	1				5
66		4			2				14
67	1	8	3		1				13
68		7	2	3	1	1	1		23
69	2	10	3	5	1				41
70	1	23	6	10		1			39
71	3	26	4	5	4		2		43
72	5	15	10	7	4	1			50
73	1	18	11	15	6	1	1		56
74	3	22	14	9	2		1		34
75		17	4	10		3	1		33
76	1	12	7	9	2	2			24
77	4	6	5	5		1			17
78		7	1	8				1	11
79	1	4	2	3	1	1	1		13
80	1	7	2			1		1	10
81	1	2	2	3	1				9
82		1		7					3
83			1	2					
84							1		1
85									
86					1				1
87									
N	26	195	78	104	28	12	11	2	456
MEAN	72.77	72.50	73.35	74.17	73.18	75.67	71.46	80.00	73.18
S.D.	4.64	3.84	3.88	4.51	4.75	3.47	8.03	1.41	4.31

Table 2.9 Weekly fork length distributions of 2SW Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1976.

FL (cm)	Week Number								Total
	20	21	22	23	24	25	26	27	
64			1						1
65									
66				1					1
67			1	1					2
68				2					2
69	1	1		2	1				5
70		2			3				5
71		1	2	2					5
72		2	4	3	2	2			13
73	2	2	2	6	2	2	1	1	18
74	3	5	2	4	1	1	2		18
75	1	8	3	1	4	4			21
76		3	1			1	1		6
77		4	4	1	1	1	1		12
78	1					3	1		5
79						5	3		8
80				1	1	3			5
81						1			1
82						1	1		2
83						1			1
N	8	28	20	24	15	25	10	1	131
MEAN	73.75	74.14	73.20	72.13	73.33	77.28	77.10	73.00	74.33
S.D.	2.49	2.21	3.37	3.18	2.99	3.12	2.85	0.00	3.41

Table 2.10 Weekly fork length distributions of 3SW Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1974.

FL (cm)	Week Number 20	22	Total
84	1		1
85		1	1
86			
87			
88			
89		1	1
90			
91			
92			
93		1	1
94		1	1
N	1	4	5
MEAN	84.00	90.25	89.00
S.D.	0.00	4.11	4.53

Table 2.11 Weekly fork length distributions of 3SW Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1975.

FL (cm)	Week Number						Total
	20	21	22	23	24	26	
80		1					1
81							
82		1					1
83							
84			1				1
85				3			3
86							
87	1	1			1		3
88			1				1
89	1			2			3
90	1	1					2
91		1				1	2
92			1				1
93				1	1		2
94							
95		1					1
96							
97			1				1
N	3	6	4	6	2	1	22
MEAN	88.67	87.50	90.25	87.67	90.00	91.00	88.59
S.D.	1.53	5.68	5.56	3.27	4.24	0.00	4.16

Table 2.12 Weekly fork length distributions of 3SW Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1976.

FL (cm)	Week Number			Total
	23	25	26	
87	1			1
89		1		1
94	1			1
96			1	1
N	2	1	1	4
MEAN	90.50	89.00	96.00	91.50
S.D.	4.95	0.00	0.00	4.20

Table 2.13 Weekly fork length distributions of previously spawned Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1974.

Fl (cm)	Week Number				Total
	22	24	25	26	
65		1			1
66					
67		2			2
68					
69	1				1
70					
71		1			1
72		1			1
73					
74					
75	1				1
76	1				1
77					
78	1				1
79					
80			1		1
81					
82					
83					
84	1				1
85				1	1
86	1				1
87	1				1
88					
89					
90	1				1
N	8	5	1	1	15
MEAN	80.63	68.40	80.00	85.00	76.80
S.D.	7.21	2.97	0.00	0.00	8.22

Table 2.14 Weekly fork length distributions of previously spawned Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland in 1975.

FL (cm)	Week Number				Total
	21	22	23	24	
66	1				1
67			1		1
68				1	1
69					
70			1		1
71					
72					
73					
74					
75		1			1
76	1	1			2
77					
78		1			1
79		4		1	5
80					
81					
82			1		1
83					
84					
85			1		1
86					
87					
88			1		1
89					
90	1				1
91					
92					
93		1			1
N	3	8	5	2	18
MEAN	77.33	79.75	78.40	73.50	78.28
S.D.	12.06	5.57	9.34	7.78	7.61

Table 2.15 Weekly fork length distributions of previously spawned Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1976.

FL (CM)	Week Number					Total
	20	21	22	24	26	
68				1		1
69			1			1
75			1			1
77		1				1
78	1				2	3
N	1	1	2	1	2	7
MEAN	78.00	77.00	72.00	68.00	78.00	74.71
S.D.	0.00	0.00	4.24	0.00	0.00	4.39

Table 3.1. Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 20, 1974. PS=Previous Spawners.

Sea Age	River Age		Total	%	Mean
	2	3			
2	1	2	3	75.0	2.67
3	1		1	25.0	2.00
Total	2	2	4	100.0	2.50
%	50.0	50.0	100.0	-	-
Mean	2.50	2.00	2.25	-	-

Table 3.2. Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 21, 1974. PS=Previous Spawners.

Sea Age	River Age			Total	%	Mean
	2	3	4			
2	3	2	2	7	100.0	2.86
Total	3	2	2	7	100.0	2.86
%	42.9	28.6	28.6	100.1	-	-
Mean	2.00	2.00	2.00	2.00	-	-

Table 3.3. Distribution of river and sea age of Atlantic Salmon caught in gill nets near Portugal Cove, Newfoundland during week # 22, 1974. PS=Previous Spawners.

Sea Age	River Age 2	3	4	5	Unknown	Total	%	Mean
1		2				2	2.0	3.00
2	36	28	17	4	2	87	86.1	2.87
3	1	2	1			4	4.0	3.00
PS	2	3	3			8	7.9	3.13
Total	39	35	21	4	2	101	100.0	2.90
% of Total	38.6	34.7	20.8	4.0	2.0	100.1	-	-
% (exc. unknowns)	39.4	35.4	21.2	4.0	-	100.0	-	-
Mean (exc. PS)	2.03	2.00	2.06	2.00	2.00	2.02	-	-

Table 3.4 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 23, 1974.

Sea Age	River Age 3	Total	%	Mean
2	1	1	100.0	3.00
Total	1	1	100.0	3.00
%	100.0	100.0	-	-
Mean	2.00	2.00	-	-

Table 3.5 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 24, 1974. PS=Previous Spawners.

Sea Age	River Age				Total	%	Mean
	2	3	4	5			
1	13	21	5	1	40	47.6	2.85
2	17	16	6		39	46.4	2.72
PS		4	1		5	6.0	3.20
Total	30	41	12	1	84	100.0	2.81
%	35.7	48.8	14.3	1.2	100.0	-	-
Mean (ex. PS)	1.57	1.43	1.55	1.00	1.49	-	-

Table 3.6 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 25, 1974. PS=Previous Spawners.

Sea Age	River Age					Total	%	Mean
	2	3	4	6	Unknown			
1	3	16	5	1		25	71.4	3.20
2	1	6	1		1	9	25.7	3.00
PS	1					1	2.9	2.00
Total	5	22	6	1	1	35	100.0	3.12
% of Total	14.3	62.9	17.1	2.9	2.9	100.1	-	-
% (exc. unknowns)	14.7	64.7	17.6	2.9	-	99.9	-	-
Mean (exc. PS)	1.25	1.27	1.17	1.00	2.00	1.26	-	-

Table 3.7 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 26, 1974. PS=Previous Spawners.

Sea Age	Week Number 2	3	4	5	Unknown	Total	%	Mean
1	29	56	25	3	2	115	73.7	3.02
2	21	13	6			40	25.6	2.63
PS		1				1	0.6	3.00
Total	50	70	31	3	2	156	99.9	2.92
% of Total	32.1	44.9	19.9	1.9	1.3	100.1	-	-
%(exc. unknowns)	32.5	45.5	20.1	2.0	-	100.1	-	-
Mean (exc. PS)	1.42	1.19	1.19	1.00	1.00	1.26	-	-

Table 3.8 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 27, 1974.

Sea Age	River Age				Total	%	Mean
	2	3	4	Unknown			
1	5	14	1		20	87.0	2.80
2	1	1		1	3	13.0	2.50
Total	6	15	1	1	23	100.0	2.77
% of Total	26.1	65.2	4.3	4.3	99.9	-	-
% (exc. unknowns)	27.3	68.2	4.5	-	100.0	-	-
Mean	1.17	1.07	1.00	2.00	1.13	-	-

Table 3.9 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 20, 1975.

Sea Age	River Age					Total	%	Mean
	1	2	3	4	Unknown			
2	1	8	10	2	5	26	89.7	2.62
3	0	2	1			3	10.3	2.33
Total	1	10	11	2	5	29	100.0	2.58
% of Total	3.4	34.5	37.9	6.9	17.2	100.0	-	-
% (exc.	4.2	41.7	45.8	8.3	-	100.0	-	-
Mean	2.00	2.20	2.09	2.00	2.00	2.10	-	-

Table 3.10 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 21, 1975. PS=Previous Spawners.

Sea Age	River Age						Total	%	Mean
	1	2	3	4	5	Unknown			
1	2	7	7	2		1	19	8.5	2.50
2		102	73	7	3	10	195	87.4	2.52
3		3	3				6	2.7	2.50
PS			3				3	1.3	3.00
Total	2	112	86	9	3	11	223	99.9	2.52
% of Total	0.9	50.2	38.6	4.0	1.3	4.9	99.9	-	-
% (exc. unknowns)	0.9	52.8	40.6	4.3	1.4	-	100.0	-	-
Mean (exc. PS)	1.00	1.96	1.95	1.78	2.00	1.91	1.94	-	-

Table 3.11 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 22, 1975. PS=Previous Spawners.

Sea Age	River Age 1	2	3	4	Unknown	Total	%	Mean
1	1	5	14	2	1	23	20.4	2.77
2	1	40	31	3	3	78	69.0	2.48
3		1	3			4	3.5	2.75
PS		1	3	3	1	8	7.1	3.29
Total	2	47	51	8	5	113	100.0	2.60
% of Total	1.8	41.6	45.1	7.1	4.4	100.0	-	-
%(exc. unknowns)	1.9	43.5	47.2	7.4	-	100.0	-	-
Mean (Exc. PS)	1.50	1.91	1.77	1.60	1.75	1.82	-	-

Table 3.12 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 23, 1975. PS=Previous Spawners.

Sea Age	River Age 2	3	4	5	6	Unknown	Total	%	Mean
1	7	29	4				40	25.8	2.93
2	48	45	6	1	1	3	104	67.1	2.63
3	5	1					6	3.9	2.17
PS	2	1	2				5	3.2	3.00
Total	62	76	12	1	1	3	155	100.0	2.70
% of Total	40.0	49.0	7.7	0.6	0.6	1.9	99.8	-	-
%(exc. unknowns)	40.8	50.0	7.9	0.7	0.7	-	100.1	-	-
Mean (exc. PS)	1.97	1.63	1.60	2.00	2.00	2.00	1.77	-	-

Table 3.13 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 24, 1975. PS=Previous Spawners.

Sea Age	River Age 1	2	3	4	5	Unknown	Total	%	Mean
1	1	3	22	5			31	49.2	3.00
2		11	8	7	1	1	28	44.4	2.93
3		2					2	3.2	2.00
PS		1	1				2	3.2	2.50
Total	1	17	31	12	1	1	63	100.0	2.92
% of Total	1.6	27.0	49.2	19.0	1.6	1.6	100.0	-	-
% (exc. unknowns)	1.6	27.4	50.0	19.4	1.6	-	100.0	-	-
Mean (exc. PS)	1.00	1.94	1.27	1.58	2.00	2.00	1.52	-	-

Table 3.14 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 25, 1975.

Sea Age	River Age 2	3	4	5	6	Total	%	Mean
1	8	23	2			33	73.3	2.82
2	3	5	2	1	1	12	26.7	3.33
Total	11	28	4	1	1	45	100.0	2.96
%	24.4	62.2	8.9	2.2	2.2	99.9	-	-
Mean	1.27	1.18	1.50	2.00	2.00	1.27	-	-

Table 3.15 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 26, 1975.

Sea Age	River Age					Total	%	Mean
	1	2	3	4	Unknown			
1		1	14	3	2	20	62.5	3.11
2	1	6	2	2		11	34.4	2.45
3		1				1	3.1	2.00
Total	1	8	16	5	2	32	100.0	2.83
% of Total	3.1	25.0	50.0	15.6	6.3	100.0	-	-
% (exc. unknowns)	3.3	26.7	53.3	16.7	-	100.0	-	-
Mean	2.00	2.00	1.13	1.40	1.00	1.41	-	-

Table 3.16 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 27, 1975.

Sea Age	River Age				Total	%	Mean
	2	3	4	5			
1	1	9	2	1	13	86.7	3.23
2	1			1	2	13.3	3.50
Total	2	9	2	2	15	100.0	3.27
%	13.3	60.0	13.3	13.3	99.9	-	-
Mean	1.50	1.00	1.00	1.50	1.13	-	-

Table 3.17 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 20, 1976. PS=Previous Spawners

Sea Age	River Age				Total	%	Mean
	2	3	4	6			
2		5	2	1	8	88.9	3.63
PS	1				1	11.1	2.00
Total	1	5	2	1	9	100.0	3.44
%	11.1	55.6	22.2	11.1	100.0	-	-
Mean (exc. PS)	0.00	2.00	2.00	2.00	2.00	-	-

Table 3.18 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 21, 1976. PS=Previous Spawners

Sea Age	River Age				Total	%	Mean
	2	3	4	Unknown			
1	1				1	3.3	2.00
2	5	21		2	28	93.3	2.81
PS			1		1	3.3	4.00
Total	6	21	1	2	30	99.9	2.82
% of Total	20.0	70.0	3.3	6.7	100.0	-	-
% (exc. unknowns)	21.4	75.0	3.6	-	100.0	-	-
Mean (exc. PS)	1.83	2.00	0.00	2.00	1.97	-	-

Table 3.19 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 22, 1976. PS=Previous Spawners

Sea Age	River Age				Total	%	Mean
	2	3	4	Unknown			
2	8	11	1		20	90.9	2.65
PS	1			1	2	9.1	2.00
Total	9	11	1	1	22	100.0	2.62
% of Total	40.9	50.0	4.5	4.5	99.9	-	-
% (exc. unknowns)	42.9	52.4	4.8	-	100.1	-	-
Mean (exc. PS)	2.00	2.00	2.00	-	2.00	-	-

Table 3.20 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 23, 1976.

Sea Age	River Age			Total	%	Mean
	2	3	4			
1	9	4	1	14	35.0	2.43
2	9	13	2	24	60.0	2.71
3	1	1		2	5.0	2.50
Total	19	18	3	40	100.0	2.60
%	47.5	45.0	7.5	100.0	-	-
Mean	1.58	1.83	1.67	1.70	-	-

Table 3.21 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 24, 1976. PS=Previous Spawners.

Sea Age	River Age					Total	%	Mean
	1	2	3	4	Unknown			
1	1	9	5	6		21	56.8	2.76
2		2	10	2	1	15	40.5	3.00
PS			1			1	2.7	3.00
Total	1	11	16	8	1	37	100.0	2.86
% of Total	2.7	29.7	43.2	21.6	2.7	99.9	-	-
% (exc. unknowns)	2.8	30.6	44.4	22.2	-	100.0	-	-
Mean (exc. PS)	1.00	1.18	1.67	1.25	2.00	1.42	-	-

Table 3.22 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 25, 1976.

Sea Age	River Age				Total	%	Mean
	2	3	4	5			
1	17	11	7		35	57.4	2.71
2	7	16	1	1	25	41.0	2.84
3	1				1	1.6	2.00
Total	25	27	8	1	61	100.00	2.75
%	41.0	44.3	13.1	1.6	100.0	-	-
Mean	1.36	1.59	1.13	2.00	1.44	-	-

Table 3.23 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 26, 1976. PS=Previous Spawners.

Sea Age	River Age						Total	%	Mean
	2	3	4	5	6	Unknown			
1	29	16	6	1	2	1	55	80.9	2.72
2	3	5	2				10	14.7	2.90
3		1					1	1.5	3.00
PS	1	1					2	2.9	2.50
Total	33	23	8	1	2	1	68	100.0	2.75
% of Total	48.5	33.8	11.8	1.5	2.9	1.5	100.0	-	-
% (exc. unknowns)	49.3	34.3	11.9	1.5	3.0	-	100.0	-	-
Mean (exc. PS)	1.09	1.32	1.25	1.00	1.00	1.00	1.18	-	-

Table 3.24 Distribution of river and sea age of Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during week # 27, 1976.

Sea Age	River Age				Total	%	Mean
	2	3	4	5			
1	6	3	1	1	11	91.7	2.73
2		1			1	8.3	3.00
Total	6	4	1	1	12	100.0	2.75
%	50.0	33.3	8.3	8.3	99.9	-	-
Mean	1.00	1.25	1.00	1.00	1.08	-	-

Table 4.1. Weekly river age distributions of 1-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1974.

River Age	Week Number					Total
	22	24	25	26	27	
2		13	3	29	5	50
3	2	21	16	56	14	109
4		5	5	25	1	36
5		1		3		4
6			1			1
N	2	40	25	113	20	200
MEAN	3.00	2.85	3.20	3.02	2.80	2.99
S.D.	0.00	0.74	0.82	0.77	0.52	0.75

Table 4.2. Weekly river age distributions of 1-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1975.

River Age	Week Number								Total
	20	21	22	23	24	25	26	27	
1		2	1		1				4
2		7	5	7	3	8	1	1	32
3		7	14	29	22	23	14	9	118
4		2	2	4	5	2	3	2	20
5								1	1
N		18	22	40	31	33	18	13	175
MEAN		2.50	2.77	2.93	3.00	2.82	3.11	3.23	2.90
S.D.		0.86	0.69	0.53	0.63	0.53	0.47	0.73	0.63

Table 4.3. Weekly river age distributions of 1-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1976.

River Age	Week Number						Total
	21	23	24	25	26	27	
1			1				1
2	1	9	9	17	29	6	71
3		4	5	11	16	3	39
4		1	6	7	6	1	21
5					1	1	2
6					2		2
N	1	14	21	35	54	11	136
MEAN	2.00	2.43	2.76	2.71	2.72	2.73	2.69
S.D.	0.00	0.65	0.94	0.79	1.00	1.01	0.90

Table 4.4. Weekly river age distributions of 2-sea-winter Atlantic salmon caught in gill nets near Protugal Cove, Newfoundland, in 1974

River Age	Week Number								Total
	20	21	22	23	24	25	26	27	
2	1	3	36		17	1	21	1	80
3	2	2	28	1	16	6	13	1	69
4		2	17		6	1	6		32
5			4						4
N	3	7	85	1	39	8	40	2	185
MEAN	2.67	2.86	2.87	3.00	2.72	3.00	2.63	2.50	2.78
S.D.	0.58	0.90	0.90	0.00	0.72	0.53	0.74	0.71	0.81

Table 4.5. Weekly river age distributions of 2-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1975.

River Age	Week Number								Total
	20	21	22	23	24	25	26	27	
1	1		1				1		3
2	8	102	40	48	11	3	6	1	219
3	10	73	31	45	8	5	2		174
4	2	7	3	6	7	2	2		29
5		3		1	1	1		1	7
6				1		1			2
N	21	185	75	101	27	12	11	2	4
MEAN	2.62	2.52	2.48	2.63	2.93	3.33	2.45	3.50	59
S.D.	0.74	0.65	0.60	0.73	0.92	1.23	0.93	2.12	4

Table 4.6. Weekly river age distributions of 2-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1976.

River Age	Week Number								Total
	20	21	22	23	24	25	26	27	
2		5	8	9	2	7	3		34
3	5	21	11	13	10	16	5	1	82
4	2		1	2	2	1	2		10
5						1			1
6	1								1
N	8	26	20	24	14	25	10	1	128
MEAN	3.63	2.81	2.65	2.71	3.00	2.84	2.90	3.00	2.85
S.D.	1.06	0.40	0.59	0.62	0.55	0.69	0.74	0.00	0.65

Table 4.7. Weekly river age distributions of 3-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1974.

River Age	Week Number		Total
	20	22	
2	1	1	2
3		2	2
4		1	1
N	1	4	5
MEAN	2.00	3.00	2.80
S.D.	0.00	0.82	0.84

Table 4.8. Weekly river age distributions of 3-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1975.

	Week Number						
River Age	20	21	22	23	24	26	Total
2	2	3	1	5	2	1	14
3	1	3	3	1			8
N	1	6	4	6	2	1	22
MEAN	2.33	2.50	2.75	2.17	2.00	2.00	2.36
S.D.	0.58	0.55	0.50	0.41	0.00	0.00	0.49

Table 4.9. Weekly river age distributions of 3-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1976.

River Age	Week Number			Total
	23	25	26	
2	1	1		2
3	1		1	2
N	2	1	1	4
MEAN	2.50	2.00	3.00	2.50
S.D.	0.71	0.00	0.00	0.58

Table 4.10. Weekly river age distributions of previously spawned Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1974.

River Age	Week Number				Total
	22	24	25	26	
2	2		1		3
3	3	4		1	8
4	3	1			4
N	8	5	1	1	15
MEAN	3.13	3.20	2.00	3.00	3.07
S.D.	0.83	0.45	0.00	0.00	0.70

Table 4.11. Weekly river age distributions of previously spawned Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1975.

River Age	Week Number				Total
	21	22	23	24	
2		1	2	1	4
3	3	3	1	1	8
4		3	2		5
N	3	7	5	2	17
MEAN	3.00	3.29	3.00	2.50	3.06
A.D.	0.00	0.76	1.00	0.71	0.75

Table 4.12. Weekly river age distributions of previously spawned Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland during 1976.

River Age	Week Number					Total
	20	21	22	24	26	
2	1		1		1	3
3				1	1	2
4		1				1
N	1	1	1	1	2	6
MEAN	2.00	4.00	2.00	3.00	2.50	2.67
S.D.	0.00	0.00	0.00	0.00	0.71	0.82

Table 5.1. Weekly sea age distributions of Atlantic salmon caught in gill nets near Portugal Cove in 1974. PS=Previous Spawners.

Sea Age	Week Number								Total
	20	21	22	23	24	25	26	27	
1	0	0	2	0	40	25	115	20	202
2	3	7	87	1	39	9	40	3	189
3	1	0	4	0	0	0	0	0	5
PS	0	0	8	0	5	1	1	0	15
N	4	7	101	1	84	35	156	23	411
Mean (exc.PS)	2.25	2.00	2.02	2.00	1.49	1.26	1.26	1.13	1.50
S.D.	0.50	0.00	0.25	0.00	0.50	0.45	0.44	0.34	0.53
% 1-sea-winter	0.0	0.0	2.0	0.0	47.6	71.4	73.7	87.0	49.1
% other	100.0	100.0	98.0	100.0	52.4	28.6	26.3	13.0	50.9

Table 5.2. Weekly sea age distributions of Atlantic salmon caught in gill nets near Portugal Cove in 1975. PS = Previous Spawners.

	Week Number								
Sea Age	20	21	22	23	24	25	26	27	Total
1	0	19	23	40	31	33	20	13	179
2	26	195	78	104	28	12	11	2	456
3	3	6	4	6	2	0	1	0	22
PS	0	3	8	5	2	0	0	0	18
N	29	223	113	155	63	45	32	15	675
Mean (exc.PS)	2.10	1.94	1.82	1.77	1.52	1.27	1.41	1.13	1.76
S.D.	0.31	0.33	0.48	0.51	0.57	0.45	0.56	0.35	0.50
% 1-sea-winter	0.0	8.5	20.4	25.8	49.2	73.3	62.5	86.7	26.5
% Other	100.0	91.5	79.6	74.2	50.8	26.7	37.5	13.3	73.5

Table 5.3. Weekly sea age distributions of Atlantic salmon caught in gill nets near Portugal Cove in 1976. PS=Previous Spawners.

Sea Age	Week Number								Total
	20	21	22	23	24	25	26	27	
1	0	1	0	14	21	35	55	11	137
2	8	28	20	24	15	25	10	1	131
3	0	0	0	2	0	1	1	0	4
PS	1	1	2	0	1	0	2	0	7
N	9	30	22	40	37	61	68	12	279
Mean (exc. PS)	2.00	1.97	2.00	1.70	1.42	1.44	1.18	1.08	1.51
S.D.	0.00	0.19	0.00	0.56	0.50	0.53	0.43	0.29	0.53
% 1-sea-winter	0.0	3.3	0.0	35.0	56.8	57.4	80.9	91.7	49.1
% other	100.0	96.7	100.0	65.0	43.2	42.6	19.1	8.3	50.9

Table 6.1. Weekly whole weight distributions of 1-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1974.

Whole Weight (Kg)	Week Number					Total
	22	24	25	26	27	
1.5		2	2	3		7
1.6	1	1	1	9		12
1.7	1	1	2	17	1	22
1.8		5	2	14	2	23
1.9		7	7	19	4	37
2.0		12	1	13	6	32
2.1		4	1	10	1	16
2.2		2	3	10	2	17
2.3		1	2	11		14
2.4		3	1	2	2	8
2.5		1	1	3		5
2.6				1		1
2.7		1	1	2	2	6
2.8				1		1
2.9						
3.0			1			1
N	2	40	25	115	20	202
MEAN	1.650	2.003	2.032	1.970	2.080	1.992
S.D.	0.071	0.251	0.364	0.280	0.278	0.287

Table 6.2. Weekly whole weight distributions of 1-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1975.

Whole Weight (Kg)	Week Number								Total
	20	21	22	23	24	25	26	27	
1.1		2	1				2		5
1.2				1					1
1.3			3	1	1	1			6
1.4				3	1	1			5
1.5		1	3	2	2	2			10
1.6		2	4	6	5	1	2		20
1.7		5	3	6	4	4			22
1.8		2	3	1	7	5	1		19
1.9		5	2	8	3	8	1		27
2.0			1	6	3	4	6	2	22
2.1		1	2	3	3	3	2	2	16
2.2		1		2	1	1	3	3	11
2.3			1			1			2
2.4					1		2	3	6
2.5							1	1	2
2.6				1		1		2	4
2.7									
2.8						1			1
2.9									
3.0									
3.1									
3.2									
3.3									
3.4									
3.5									
3.6									
3.7									
N		19	23	40	31	33	20	13	179
MEAN		1.726	1.683	1.795	1.797	1.894	1.960	2.285	1.846
S.D.		0.279	0.292	0.283	0.243	0.303	0.375	0.212	0.320

Table 6.3. Weekly whole weight distributions of 1-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1976.

Whole Weight (Kg)	Week Number						Total
	21	23	24	25	26	27	
1.2					1		1
1.3				1			1
1.4		2	1	1			4
1.5	1	3	3	1	4		12
1.6		1	2	3	7		13
1.7		2	5	1	5	1	14
1.8			2	5	7		14
1.9		1	2	6	7	2	18
2.0		1	2	3	10	1	17
2.1		1	2	2	9	1	15
2.2		1	1	3	1		6
2.3				2	1	6	9
2.4		1	1	2			4
2.5				4	2		6
2.6				1	1		2
2.7							
2.8		1					1
N	1	14	21	35	55	11	137
MEAN	1.500	1.836	1.800	1.997	1.887	2.127	1.913
S.D.	0.000	0.420	0.261	0.340	0.270	0.220	0.313

Table 6.4. Weekly whole weight distributions of 2-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1974.

Whole Weight (Kg)	Week Number								Total
	20	21	22	23	24	25	26	27	
2.8			1						1
2.9							1		1
3.0									
3.1									
3.2								1	2
3.3			1						
3.4					1				3
3.5		2					2		6
3.6			3		1				3
3.7			1			2			6
3.8			5		1				4
3.9			1		2		1		8
4.0			5		1	1	1		6
4.1	1		3	1	1				9
4.2	1	2	4		1		1		6
4.3			5				1		12
4.4		1	6		4	1			12
4.5	1		7		2		2		12
4.6			5		5		2		11
4.7			6		2	1	1		7
4.8			2		4		4		11
4.9			5		1	1	4		12
5.0			5		3		2		12
5.1			8			2	2		6
5.2		1	2		1		2		3
5.3			1				1		3
5.4			2				3		7
5.5			3		1		2		4
5.6			1			1	2		5
5.7			1		2		1		4
5.8			2		1		1		1
5.9							1		2
6.0					1				1
6.1			1						
6.2			1		2		1	1	5
6.3									1
6.4		1							
6.5					2			1	3
N	3	7	87	1	39	9	40	3	189
MEAN	4.267	4.486	4.613	4.100	4.831	4.578	4.953	5.333	4.727
S.D.	0.208	1.024	0.634	0.000	0.774	0.672	0.706	1.767	0.727

Table 6.5. Weekly whole weight distributions of 2-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland in 1975.

Whole Weight	Week Number								
(kg)	20	21	22	23	24	25	26	27	Total
2.0							1		1
2.1									
2.2	1	1							2
2.3		1		1					2
2.4									
2.5		1		1			1		3
2.6			1	1					2
2.7	1		1		1				3
2.8		2					1		3
2.9		1			1				2
3.0	1	5		1					7
3.1		2			1				3
3.2		6	5		2				13
3.3		4	2	2					8
3.4	1	6	1	3	1				12
3.5	1	11	1	1	1				15
3.6		7	3	1					11
3.7	2	9	1	2		1			15
3.8		7	3	4	1				15
3.9	2	9	2	2					15
4.0	3	16	10	4	1		1		35
4.1	1	13	3	9	2	1			29
4.2	2	9	4	7			1		23
4.3	1	6	1	5	2				15
4.4	1	6	4	8	1		1		21
4.5	6	15	8	6	3	1			39
4.6		8	5	6	1	1	1		21
4.7		4	5	2	2				13
4.8		6	4	4					14
4.9		14	3	2	1	1			21
5.0		4		3	3				10
5.1		6	4	2		1			13
5.2	1	1		2			3		7
5.3	1	1	1	2	1				6
5.4		4	1	4	1	1			11
5.5		3	2	4					9
5.6		1		3	1	2			7
5.7	1	2							3
5.8		1	1	1		1			4
5.9		1	1	3					5
6.0		1		3				1	5
6.1				1					1
6.2				1					1
6.3						1			1
6.4		1	1	1	1				4
6.5					1	1			2
6.6									
6.7				1					1
6.8				1				1	2
7.8							1		1
N	26	195	78	104	28	12	11	2	456
Mean	4.062	4.186	4.309	4.587	4.393	5.175	4.355	6.400	4.344
S.D.	0.757	0.736	0.716	0.873	0.971	0.854	1.601	0.566	0.847

Table 6.6. Weekly whole weight distributions of 2-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1976.

Whole weight (Kg)	Week Number								Total
	20	21	22	23	24	25	26	27	
2.9			1						1
3.0			1						1
3.1				1					1
3.2									
3.3				1					1
3.4		2		3					5
3.5		1		1					2
3.6		1							1
3.7			1						1
3.8				2					2
3.9		1	1	1	2				5
4.0	3	2	2	4	1				12
4.1		4	2	2			1		9
4.2	1	1	1				1		4
4.3						1			1
4.4	1	2	1	3	1	1	1		10
4.5		3	2			3			8
4.6		1	1		2				4
4.7	2	3	2	2	2	2			13
4.8	1	3	2		1				7
4.9				2	1	1			4
5.0		2	1			1	1	1	6
5.1		1				3			4
5.2			1	1	1	2			5
5.3			1				1		2
5.4					2	1	2		5
5.5		1			1	2	1		5
5.6									
5.7					1				1
5.8						1			1
5.9						1			1
6.0				1		3			4
6.1						2	1		3
6.2							1		1
6.3									
6.4									
6.5									
6.6						1			1
N	8	28	20	24	15	25	10	1	131
MEAN	4.350	4.371	4.320	4.142	4.780	5.284	5.160	5.000	4.606
S.D.	0.346	0.532	0.638	0.685	0.580	0.645	0.735	0.000	0.737

Table 6.7. Weekly whole weight distributions of 3-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1974.

Whole Weight (Kg)	Week Number 20	22	Total
6.1		1	1
6.9	1		1
7.8		1	1
7.9		1	1
9.7		1	1
N	1	4	5
MEAN	6.900	7.875	7.680
S.D.	0.000	1.471	1.346

Table 6.8. Weekly whole weight distributions of 3-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1975.

Whole Weight (Kg)	Week Number						Total
	20	21	22	23	24	26	
6.0		1	1				2
6.6		1					1
6.9	1						1
7.2				1			1
8.0				1			1
8.1		2					2
8.2			1				1
8.3					1		1
8.4	2		1	1			4
8.6				1			1
8.8		1		1			2
9.1		1			1		2
9.4						1	1
9.5				1			1
9.9			1				1
N	3	6	4	6	2	1	22
MEAN	7.900	7.783	8.125	8.417	8.700	9.400	8.191
S.D.	0.866	1.229	1.607	0.776	0.566	0.000	1.062

Table 6.9. Weekly whole weight distributions of 3-sea-winter Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland, in 1976.

Whole Weight (Kg)	Week Number			Total
	23	25	26	
7.6		1		1
7.7	1			1
9.4	1			1
10.5			1	1
N	2	1	1	4
MEAN	8.550	7.600	10.500	8.800
S.D.	1.202	0.000	0.000	1.402

Table 6.10. Weekly whole weight distributions of previously spawned Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland in 1974.

Whole Weight (Kg)	Week Number				Total
	22	24	25	26	
2.5		1			1
3.3		2			2
3.5		1			1
3.7	1				1
4.2		1			1
4.5	1				1
4.6	1				1
5.0	1				1
6.2	1		1		2
7.1				1	1
7.8	1				1
7.9	1				1
8.7	1				1
N	8	5	1	1	15
MEAN	6.050	3.360	6.200	7.100	5.233
S.D.	1.877	0.607	0.000	0.000	1.954

Table 6.11. Weekly whole weight distributions of previously spawned Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland in 1975.

Whole Weight (Kg)	Week Number 21	22	23	24	Total
3.0			1		1
3.4	1				1
3.5			1	1	2
4.2		1			1
4.3	1				1
4.6		1			1
4.8		2			2
4.9		1			1
5.1		1			1
5.6				1	1
5.7		1			1
6.5			1		1
7.6			1		1
7.9	1				1
9.0			1		1
9.6		1			1
N	3	8	5	2	18
MEAN	5.200	5.463	5.920	4.550	5.444
S.D.	2.381	1.725	2.599	1.485	1.945

Table 6.12. Weekly whole weight distributions of previously spawned Atlantic salmon caught in gill nets near Portugal Cove, Newfoundland in 1976.

Whole Weight (Kg)	Week Number					Total
	20	21	22	24	26	
3.3				1		1
3.5			1			1
4.7		1	1			2
5.1	1					1
5.5					1	1
6.0					1	1
N	1	1	2	1	2	7
MEAN	5.100	4.700	4.100	3.300	5.750	4.686
S.D.	0.000	0.000	0.849	0.000	0.354	0.991

Table 7.1. Regression equations for (ln) whole weight or (ln) fork length for Atlantic salmon caught by weekly intervals in the Portugal Cove area, 1974-76.

Week no.	Sea age	Slope	Intercept	R^2	F	P	N
20	1	-	-	-	-	-	0
	2	2.7504	-10.3943	0.80	142.3	0.0001	37
21	1	2.9076	-11.0716	0.80	71.3	0.0001	20
	2	2.9188	-11.0867	0.73	626.3	0.0001	230
22	1	2.8137	-10.6790	0.81	99.5	0.0001	25
	2	2.7371	-10.3028	0.72	460.4	0.0001	185
23	1	2.7171	-10.2291	0.47	46.6	0.0001	54
	2	2.7662	-10.4071	0.73	339.6	0.0001	129
24	1	2.1205	-7.8306	0.70	212.3	0.0001	92
	2	2.4868	-9.1783	0.65	149.4	0.0001	82
25	1	2.5325	-9.4470	0.74	258.7	0.0001	93
	2	2.8466	-10.7128	0.71	105.8	0.0001	46
26	1	2.6702	-10.0177	0.70	429.3	0.0001	190
	2	2.8467	-10.7088	0.84	310.2	0.0001	61
27	1	1.6713	-5.9759	0.36	23.8	0.0001	44
	2	2.6436	-9.7479	0.97	142.6	0.0001	6

Table 8.1. Weekly sex ratios by sea age of Atlantic Salmon caught in gill nets near Portugal Cove, Newfoundland during 1974.

Sea Age	Week Number 20		21		22		24		25		26		27		Total	
	N	% F	N	% F	N	% F	N	% F	N	% F	N	% F	N	% F	N	% F
1									1	100.0	12	25.0	2	0.0	15	26.7
2	2	50.0	2	50.0	8	87.5	1	100.0	4	75.0	4	100.0	1	100.0	22	81.8
3	1	100.0													1	100.0
Total	3	66.7	2	50.0	8	87.5	1	100.0	5	80.0	16	43.8	3	33.3	38	60.5

Table 8.2. Weekly sex ratios by sea age of Atlantic Salmon caught in gill nets near Portugal Cove, Newfoundland during 1975. PS = Previous Spawners.

Sea Age	Week Number 20		21		22		23		24		25		26		27		Total	
	N	% F	N	% F	N	% F	N	% F	N	% F	N	% F	N	% F	N	% F	N	% F
1							2	50.0	3	66.7	3	66.7	2	100.0	3	33.3	13	61.5
2	2	100.0	2	0.0	4	75.0	4	75.0	2	50.0	8	75.0	5	80.0	2	100.0	29	72.4
3							1	100.0					1	0.0			2	50.0
PS					1	0.0											1	0.0
Total	2	100.0	2	0.0	5	60.0	7	71.4	5	60.0	11	72.7	8	75.0	5	60.0	45	66.7

Table 8.3. Weekly sex ratios by sea age of Atlantic Salmon caught in gill nets near Portugal Cove, Newfoundland during 1976. PS = Previous Spawners.

Sea Age	Week Number 20		21		22		23		24		25		26		27		Total	
	N	% F	N	% F	N	% F	N	% F	N	% F	N	% F	N	% F	N	% F	N	% F
1			1	0.0			2	0.0	8	62.5	1	0.0	9	33.3	7	14.3	28	32.1
2	1	0.0	6	100.0	7	100.0	5	100.0	5	100.0	6	66.7	2	50.0	1	100.0	33	87.9
3							2	100.0			1	100.0	1	100.0			4	100.0
PS									1	100.0							1	100.0
Total	1	0.0	7	85.7	7	100.0	9	77.8	14	78.6	8	62.5	12	41.7	8	25.0	66	65.2

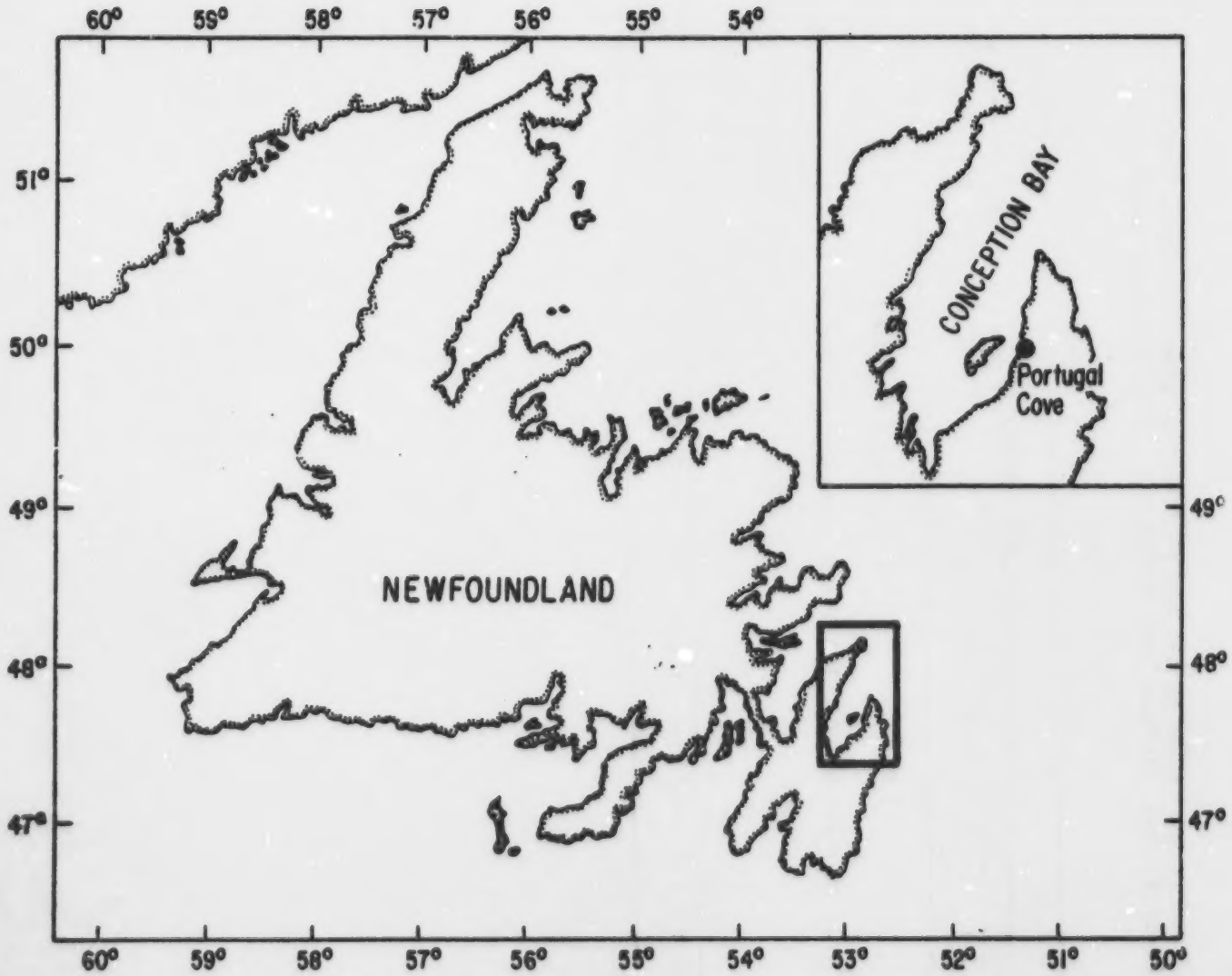

Fig. 1.1. Area map of Newfoundland and Conception Bay showing Portugal Cove.

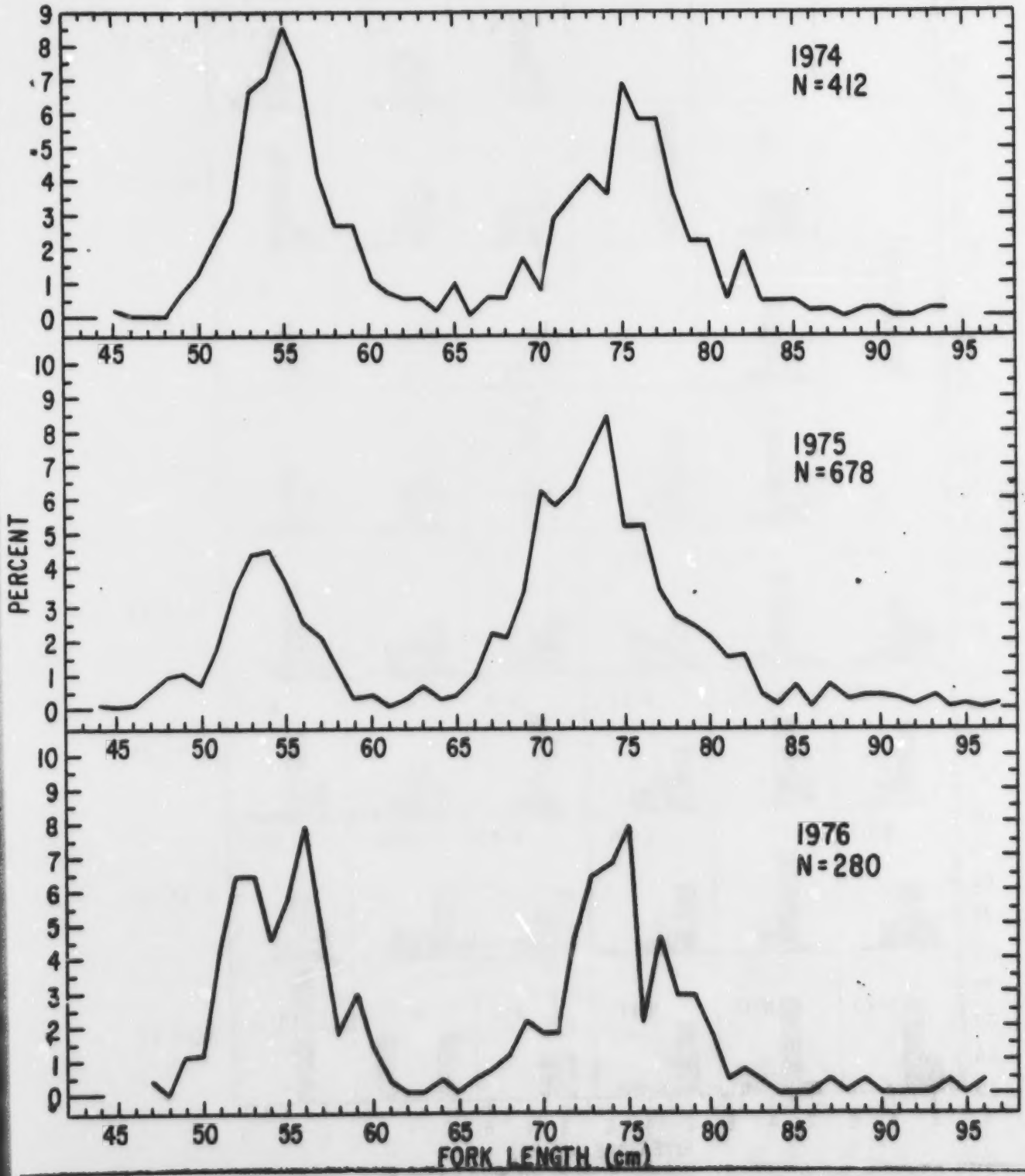

Fig. 2.1. Fork length (cm) distributions of Atlantic salmon caught in the Portugal Cove area in 1974-76.

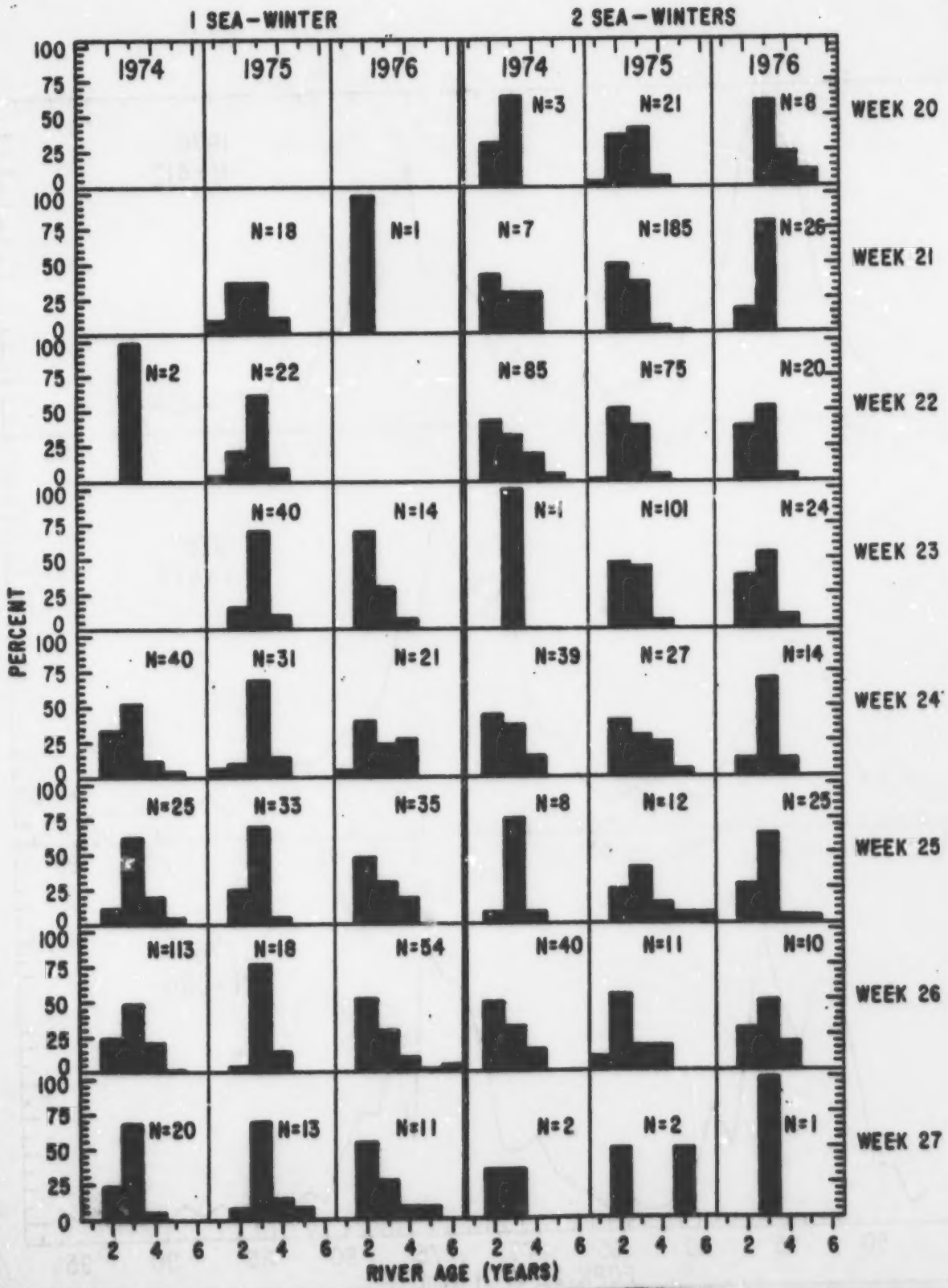

Fig. 3.1. Percentage distribution of river ages of 1SW and 2SW Atlantic salmon caught in Portugal Cove area in 1974-76 by weekly interval.

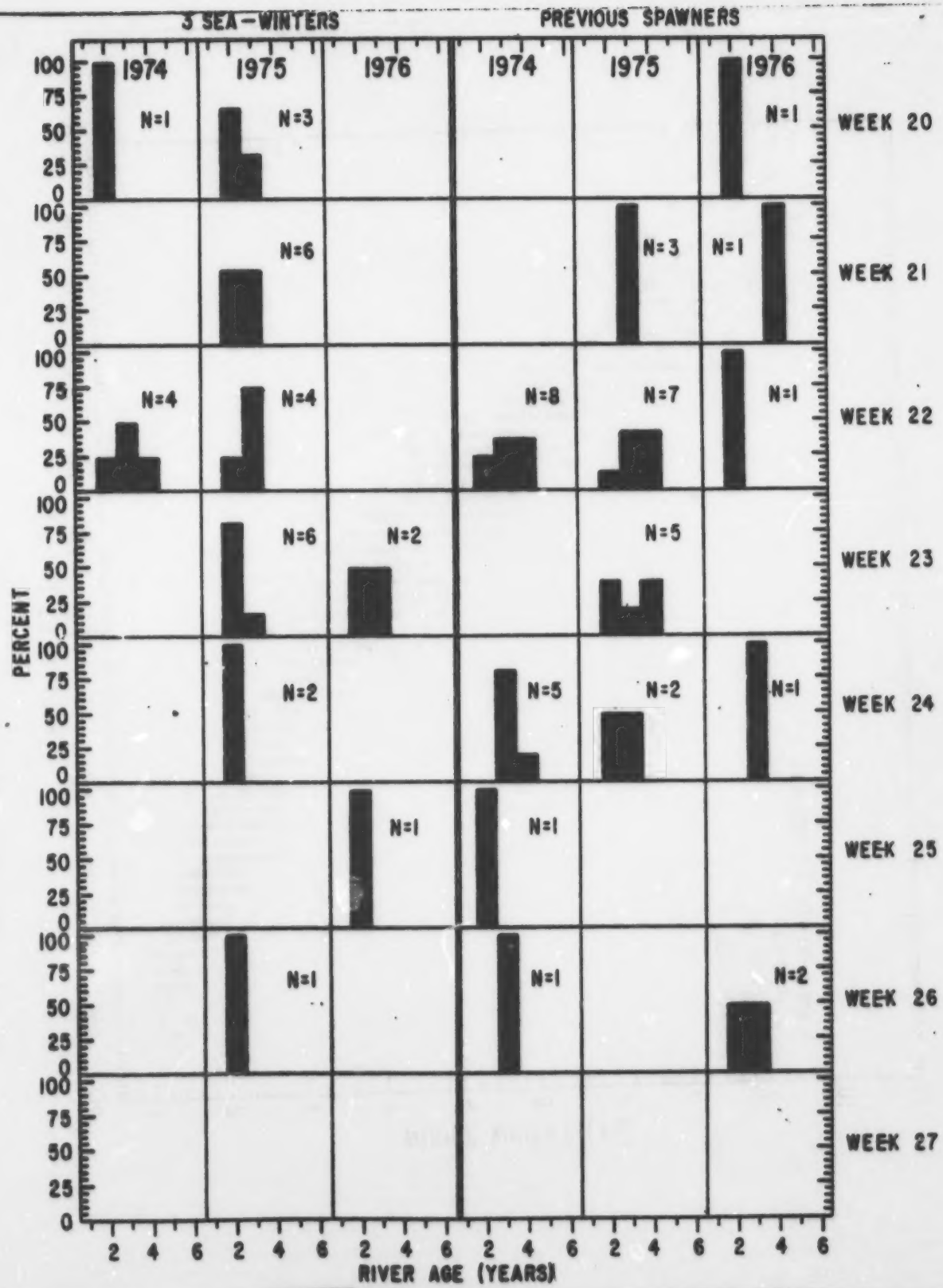

Fig. 3.2. Percentage distribution of river ages of 3SW and previously spawned Atlantic salmon caught in Portugal Cove area in 1974-76 by weekly interval.

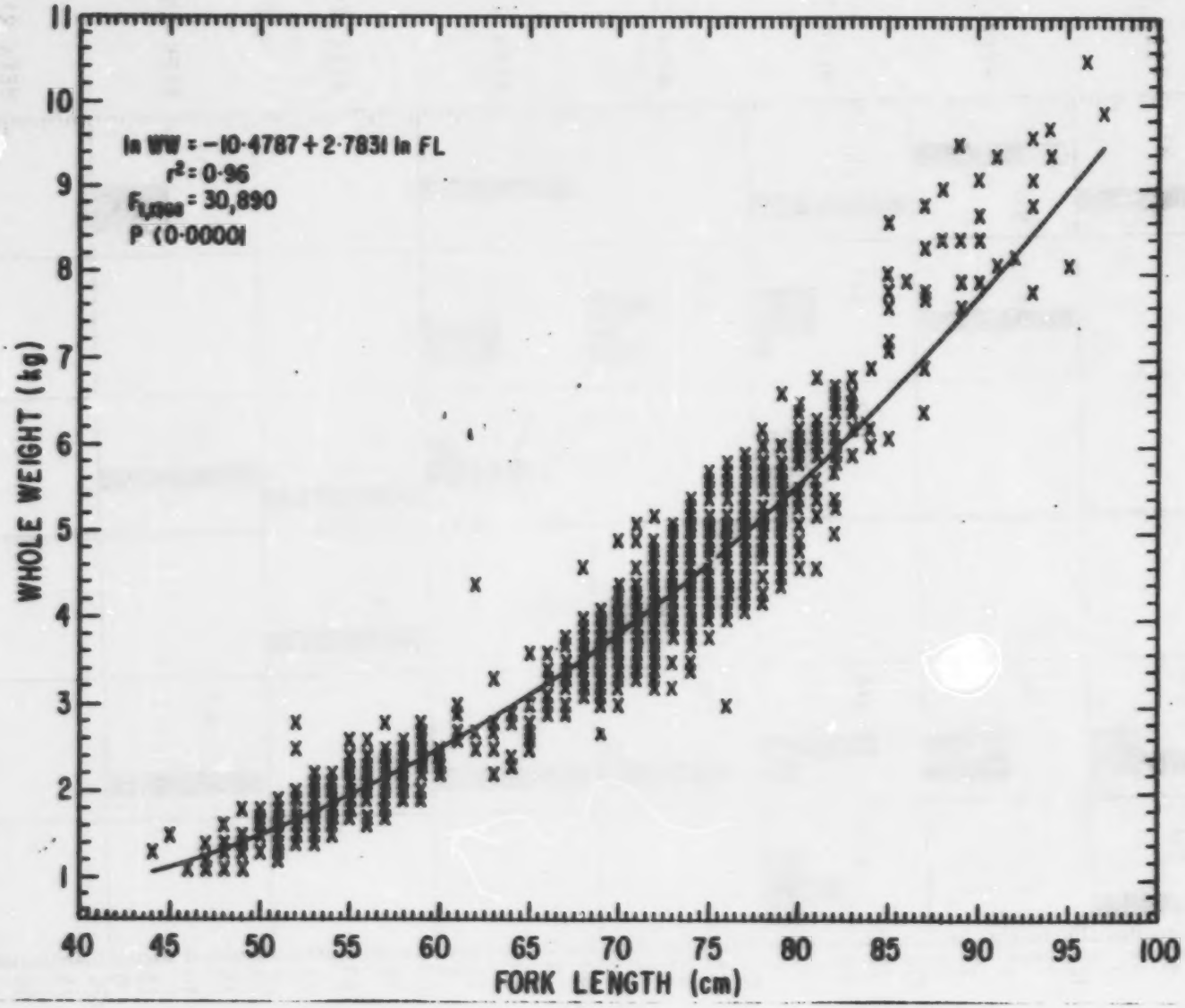

Fig. 7.1. The relationship between whole weight (kg) and fork length (cm) of Atlantic salmon caught in Portugal Cove area fishery, 1974-75.

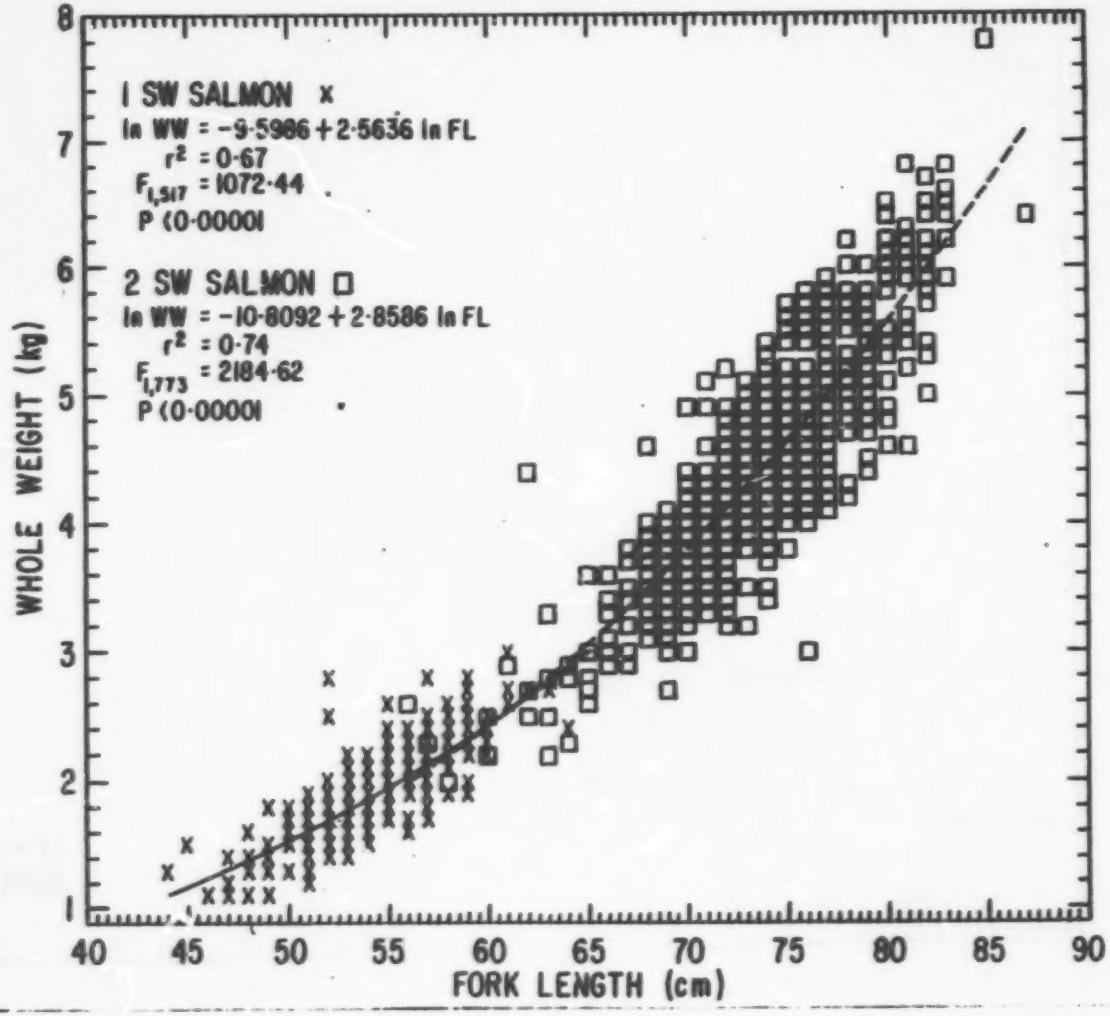

Fig. 7.2. The relationship between whole weight (kg) and fork length (cm) of 1SW and 2SW Atlantic salmon caught in Portugal Cove area fishery, 1974-76.

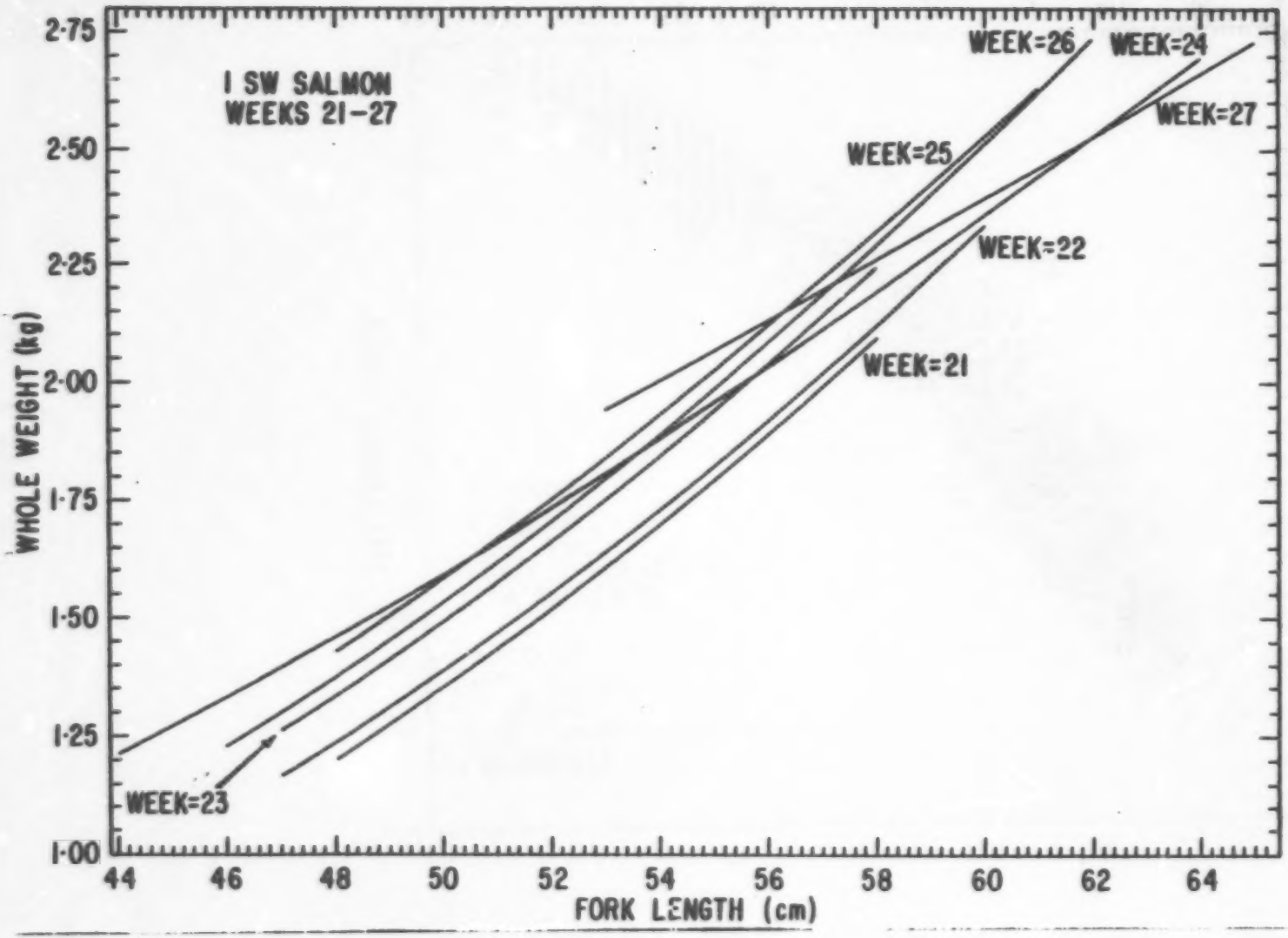

Fig. 7.3. The relationship between whole weight (kg) and fork length (cm) of 1SW Atlantic salmon caught in Portugal Cove area fishery in each of weeks 21-27 during 1974-76.

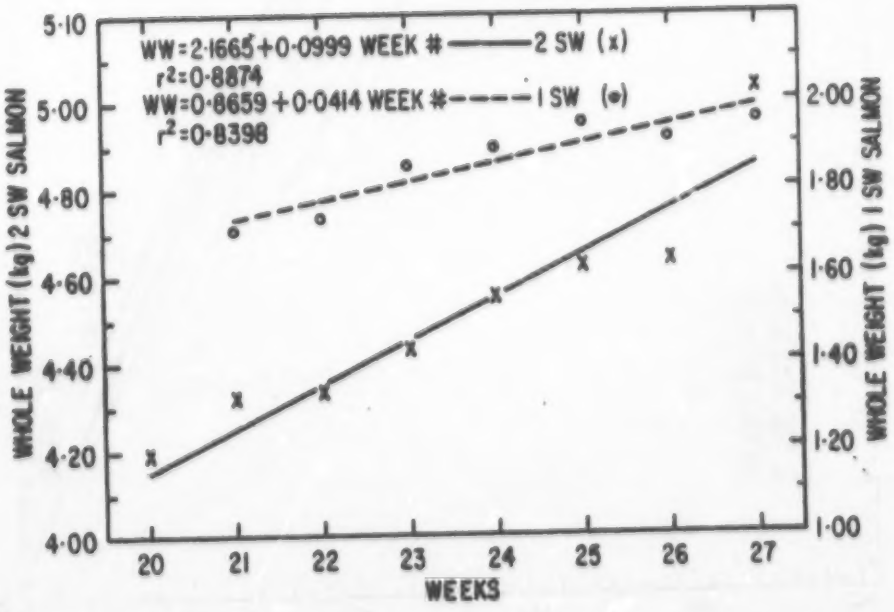

Fig. 7.4. The relationship between adjusted mean whole weights and weeks of 1SW and 2SW Atlantic salmon caught in the Portugal Cove area fishery, 1974-76

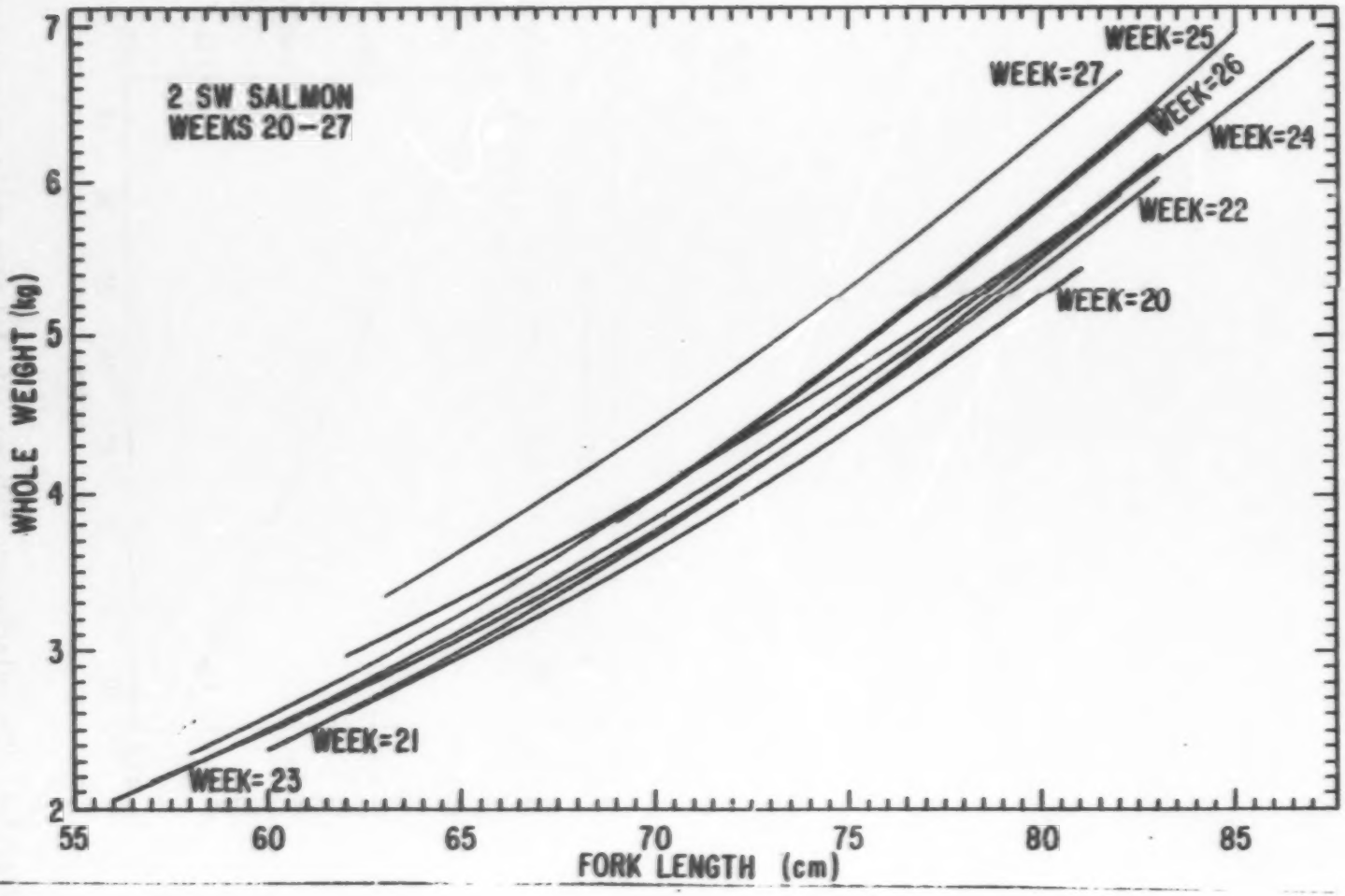

Fig. 7.5. The relationship between whole weight (kg) and fork length (cm) of 2SW Atlantic salmon caught in the Portugal Cove area fishery in each of weeks 20-27, 1974-76.